

ABSTRACT OF THE DISCLOSURE

Out-of-band data communication of diagnostic or other data is performed using transceivers in a data or communication network. A light beam or other carrier is modulated with high-speed data and out-of-band data to create a double modulated data signal. A physical layer signal is created that includes modulations of the double modulated signal. The physical layer signal is transmitted onto a physical link. The diagnostic or other data can be transmitted in the out-of-band signal without substantially reducing or otherwise interfering with the transmission rate of the high-speed data.

W:\15436\312\JLO0000000107V001.doc

WORKMAN NYDEGGER
A PROFESSIONAL CORPORATION
ATTORNEYS AT LAW
1000 EAGLE GATE TOWER
60 EAST SOUTH TEMPLE
SALT LAKE CITY, UTAH 84111